LISTING STATEMENT No. 1773

LISTED MAY 11th, 1953
3,000,000 shares of $1.00 par value
Ticker abbreviation PER
Dial ticker number 269
Post section 5.5

TORONTO STOCK EXCHANGE

LISTING STATEMENT

PERUVIAN OILS & MINERALS LIMITED

(No Personal Liability)

Incorporated under the Ontario Companies Act (Part XI) by Letters Patent dated May 8th, 1952

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1. Address of the Company's Head Office and of any other offices:
   Room 1220, 67 Yonge Street, Toronto, Ontario.
   Edificio Republica: Lima, Peru.

2. Officers of the Company:

OFFICE HELD	NAME	ADDRESS	OCCUPATION
President	W. J. McDonough	589 Avenue Road, Toronto, Ontario	Prospector
Vice-Pres. and Secretary	Alan Cockeram	18 Forest Glen Crescent, Toronto, Ontario	Secretary
Assistant Secretary	F. E. Hall	232 Martin Grove Road, Toronto, Ontario	Accountant

3. Directors of the Company:

NAME	ADDRESS	OCCUPATION
W. John McDonough	589 Avenue Road, Toronto, Ontario	Prospector
Alan Cockeram	18 Forest Glen Crescent, Toronto, Ontario	Secretary
Karl J. Springer	4 Robinwood Road, Toronto, Ontario	Prospector
Frank V. C. Hewett	222 Blythwood Road, Toronto, Ontario	Mining Engineer
Sidney H. Robinson	47 Rosedale Road, Toronto, Ontario	Solicitor

4. Names and addresses of all transfer agents:
   Sterling Trusts Corporation, 372 Bay Street, Toronto, Ontario.

5. Particulars of any fee charged upon transfer other than customary government taxes:
   Charge of 25c for each share certificate issued on transfers.

6. Names and addresses of all registrars:
   Sterling Trusts Corporation, 372 Bay Street, Toronto, Ontario.

7. Amount of authorized capital: $3,000,000.

8. Number of shares and par value: 3,000,000 of the par value of $1.00 each.

9. Full details of all shares issued in payment for properties or for any other assets other than cash:

Date	Number of Shares	Consideration
22 September, 1952.....	20,000	Issued for special services in Peru.
16 February, 1953.....	50,000	Issued in connection with the acquisition of oil concessions in Peru.
Total.....	70,000	

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10. Full details of all shares sold for cash.	

Date	Number of Shares	Price per share	Amount realized by Company
1952—			
8 May	5	$1.00	$ 5.00
16 May	372,000	.04	14,880.00
4 July	528,000	.15	79,200.00
1 October	100,000	.25	25,000.00
17 November	300,000	.25	75,000.00
1953—			
23 February	50,000	2.00	100,000.00
26 February	50,000	2.00	100,000.00
27 February	30,000	.20	6,000.00
6 March	5,000	2.00	10,000.00
22 April	75,000	2.00	150,000.00
8 May	100,000	2.00	200,000.00
8 May	25,000	2.50	62,500.00
Total	1,635,005		$822,585.00

11. Total number of shares issued.	1,705,005.
12. Number of shares now in treasury or otherwise unissued.	1,294,995.
13. Particulars of any issued shares held in trust for the Company or donated for treasury purposes.	None.
14. Date of last annual meeting.	None held as yet.
15. Date of last report to shareholders.	None.
16. Details of any treasury shares (or shares issued subject to payment or shares held for the benefit of the treasury) now under option or the subject of any underwriting or sales agreement. If none, this to be stated.	By agreement dated the 6th day of March, 1953, the Company granted to Alan Cockeram, of Toronto, the option to purchase 10,000 shares at the price of $2.00 per share until March 6th, 1954. By agreement dated May 8th, 1953, Davidson Securities Ltd. underwrote 100,000 shares at $2.00 a share, which have been taken up as set out in item 10 above, and secured an option on 100,000 shares at $2.50 a share for 60 days. By a further agreement dated May 8th, 1953, Close Brothers Ltd., of London, England, underwrote 50,000 shares at $2.50 a share, of which one-half was taken up forthwith, as set out in item 10 above and the balance is payable in 30 days.
17. Details of any shares pooled, deposited in escrow, non-transferable or held under any syndicate agreement or control.	1,173,333 shares are held in escrow by The Sterling Trusts Corporation, 372 Bay Street, Toronto. Release of one-seventh of 176,120 of said shares monthly on the 1st day of each month commencing July 1st, 1953; Release of one-tenth of 923,773 of said shares monthly on the 15th day of each, month commencing July 15th, 1953; Release of one-ninth of 73,440 of said shares monthly on the 15th day of each month commencing August 15th, 1953. 25,000 shares are held in escrow by Messrs. Holden, Murdoch, Walton, Finlay & Robinson, release of one-tenth of these shares monthly on the 15th day of each month commencing July 15th, 1953.
18. Details of any registration with or approval or authority for sale granted by or any filing with a Securities Commission or corresponding Government body.	A prospectus dated January 15th, 1953, was filed with the Ontario Securities Commission on January 22nd, 1953, and an amendment to said prospectus dated April 22nd, 1953, was filed with said Commission on April 23rd, 1953.
19. Has any application for registration with, or approval or authority for sale by or any filing with a Securities Commission or corresponding Government body ever been refused, cancelled or revoked? If so, give particulars.	No.
20. Particulars of any bonds, debentures, notes, mortgages, charges, liens or hypothecations outstanding.	None.

21. Enumerate fully, giving claim or property numbers, approximate acreage, townships and mining camp or oil field: (a) Properties owned where titles vested in Company. (b) Properties leased. (c) Properties otherwise held. Give particulars of title held by the Company in each instance, (e.g. patented, unpatented, Crown granted, held under mining license, perpetual lease, etc.)	See Geological Engineer's report on page 7.
22. Full particulars of any royalties or other charges payable upon production from each individual property.	None.
23. Are any lawsuits pending against the Company or any of its properties, or are there any other circumstances which might affect the Company's position or title adversely? If so, explain fully.	No.
24. Describe plant and equipment on property.	None.
25. Describe development accomplished and planned.	No development has been accomplished to date; the Company plans to proceed immediately with the mapping of its exploitation concessions and with seismographic work.
26. Date and author of mining engineer's or petroleum geologist's report filed with this application and available for inspection on request.	Report of P. H. Blanchet, M.E.I.C., P.Eng., dated 28th November, 1952.
27. Full particulars of production to date.	None.
28. Have any dividends been paid? If so, give dates, per share rate, and amount paid in dollars on each distribution.	No dividends have been paid.

29. Name and address of the solicitor or attorney whose certificate that the applicant is a valid and subsisting company and that the shares which have been allotted and issued were legally created and are fully paid and non-assessable has been filed with the Exchange.	Holden, Murdoch, Walton, Finlay & Robinson, 2402, 44 King Street West, Toronto, Ontario.
30. (a) Have any shares of the Company ever been listed on any other stock exchange? If so, give particulars.	No.
(b) Is any application for listing the shares of the Company on any other stock exchange now pending or contemplated? If so, give particulars.	No.
(c) Has the listing of any shares of the Company ever been refused or deferred on any stock exchange? If so, give particulars.	No.
31. Particulars of the principal business in which each director has been engaged during the past five years, giving the length of time, position held and name of employing company or firm.	The principal business in which each Director has been engaged during the past five years is as follows: WILLIAM JOHN MCDONOUGH has carried on prospecting and executive work. Engaged for one year, commencing May 1st, 1951, with de Haviland Aircraft of Canada Limited, as executive assistant to the Board of Directors. ALAN COCKERAM, a Director and officer of Conwest Exploration Company Limited; United Keno Hill Mines Limited; has been engaged in his duties as an officer of the foregoing and other companies. KARL J. SPRINGER—President of Leitch Gold Mines, Limited, and Barymin Company Limited; has been engaged in his duties as an officer of the foregoing and other companies. FRANK V. C. HEWETT, a practicing consulting mining engineer. During 1951 and 1952 was Metals Director with the Department of Defence Production, Government of Canada. SIDNEY HAMLIN ROBINSON, a practising lawyer with the firm of Holden, Murdoch, Walton, Finlay & Robinson.

Dated at Toronto the 30th day of April, 1953.

{ CORPORATE SEAL }

PERUVIAN OILS & MINERALS, LIMITED
(No Personal Liability)

"W. J. McDONOUGH," *President.*

"ALAN COCKERAM," *Secretary.*

STATEMENT SHOWING NUMBER OF SHAREHOLDERS
as of April 24th, 1953

Number				*Shares*
92	Holders of	1 – 100	shares	8,454
77	" "	101 – 1000	"	32,250
6	" "	1001 – 2000	"	9,900
4	" "	2001 – 3000	"	11,900
2	" "	3001 – 4000	"	8,000
3	" "	4001 – 5000	"	15,000
28	" "	5001 – up	"	1,489,501
212	Stockholders		Total shares	1,575,005

FINANCIAL STATEMENTS

SUPPLEMENTAL FINANCIAL INFORMATION

(a) Since February 28th, 1953, the date of the Balance Sheet published below, the Company has received $422,500 from the sale of 205,000 treasury shares, as set out in item 10 on page 2, and its cash position and issued capitalization have been increased accordingly.

(b) The underwriting and option agreement with Davidson Securities Ltd. referred to in Note 2 to the Balance Sheet has been cancelled and the Company has entered into new agreements dated May 8th, as set out in item 16 on page 2.

BALANCE SHEET AS AT FEBRUARY 28, 1953

ASSETS

Current:		
Cash in banks	$236,090.60	
Advances recoverable	304.73	
		$236,395.33
Cash and Peruvian Government bonds deposited with the Peruvian Government as guarantee upon applications made for oil concessions in Peru		84,295.27
Sundry deposits		655.77
Cost of oil concessions acquired for $15,182.79 cash and the issue of 50,000 shares of the capital stock of the Company		65,182.79
Preliminary and incorporation expenses—per Schedule A		32,657.80
Exploration and other expenses deferred—per Schedule B		121,071.27
		$540,258.23

LIABILITIES

Current:		
Accounts payable and accrued charges		$ 12,797.93
Estimated taxes on oil concessions payable		57,375.30
Capital Stock:		
Authorized—3,000,000 shares of $1 par value each.		
Issued during the period from May 8, 1952 (date of incorporation) to February 28, 1953:		
1,430,005 shares for cash	$1,430,005.00	
20,000 shares for services	20,000.00	
50,000 shares for oil concessions	50,000.00	
1,500,005 shares	$1,500,005.00	
Less discount (net) on shares issued for cash	1,029,920.00	
		470,085.00
		$540,258.23

Approved: "W. J. McDONOUGH," *Director.*

"ALAN COCKERAM," *Director.*

NOTES: 1. Assets and liabilities in the above Balance Sheet have been expressed in terms of Canadian dollars; current assets and liabilities have been converted to Canadian dollars at rates of exchange prevailing at February 28, 1953; other assets have been converted at rates of exchange in effect at the dates of acquisition of such assets.

2. Subsequent to February 28, 1953,

(a) The Company agreed to sell to Davidson Securities Limited, and that company agreed to purchase, 75,000 shares of the Company's capital stock for $2 per share; the Company granted an option to Davidson Securities Limited to purchase a further 75,000 shares of its capital stock for $2 per share, exercisable on or before June 4, 1953;

(b) The Company agreed to issue to Dr. Carlos Ledgard Jimenez 5,000 shares of the Company's capital stock for $2 per share;

(c) The Company granted to one of its officers an option to purchase 10,000 shares of its capital stock at $2 per share, exercisable on or before March 6, 1954.

AUDITORS' REPORT

To the Directors of
Peruvian Oils & Minerals, Limited (No Personal Liability):

We have examined the Balance Sheet of Peruvian Oils and Minerals, Limited (No Personal Liability) as at February 28, 1953. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances. All our requirements as auditors have been complied with.

In our opinion the accompanying Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Company as at February 28, 1953, according to the best of our information and the explanations given to us and as shown by the books of the Company.

CLARKSON, GORDON & CO.,
Chartered Accountants.

Toronto, Canada, April 29, 1953.

SCHEDULE OF PRELIMINARY AND INCORPORATION EXPENSES

For the Period May 8, 1952 (date of incorporation) to February 28, 1953

SCHEDULE A

Legal Fees and Disbursements:	
Relating to the incorporation and organization of the Company	$ 4,765.30
Relating to the registration of the Company in the Republic of Peru	3,892.50
Services and expenses in connection with investigations and negotiations for the acquisition of oil concessions in the Republic of Peru, of which $20,000 was satisfied by the allotment of 20,000 fully paid shares of the Company's capital stock at par	24,000.00
	$32,657.80

SCHEDULE OF EXPLORATION AND OTHER EXPENSES DEFERRED

For the Period May 8, 1952 (date of incorporation) to February 28, 1953

SCHEDULE B

Services and salaries		$ 27,240.50
Wages		2,330.72
Travel and transportation		25,554.76
Engineers' and geological fees		12,541.09
Rent		790.25
Supplies		1,616.00
Telephone and telegraph		1,441.81
Postage and excise		241.27
Legal and audit fees		7,183.01
Licenses and filing fees		152.00
Transfer agent expense		494.45
Insurance		435.90
Bank charges		55.36
Freight, express and customs		379.96
Subscriptions		1,849.51
Translation and documentation		130.56
Maps and prints		1,895.39
Prospectors' expense		698.66
Miscellaneous		3,442.32
Estimated taxes on oil concessions		57,375.30
		$145,848.82
Deduct:		
Amounts recovered from participants in certain concessions	$22,413.32	
Interest on bonds	498.57	
Gain on foreign exchange	1,865.66	
		24,777.55
		$121,071.27

GEOLOGICAL ENGINEER'S REPORT

GEOLOGICAL REPORT ON PETROLEUM CONCESSIONS, IN PROCESS OF ACQUISITION, IN THE EASTERN AND COASTAL ZONES OF PERU, SOUTH AMERICA

November 28th, 1952

Following are given particulars of the lands covered by the concessions, listed below, applied for by Peruvian Oils and Minerals Limited, and inscribed on the official plans of the Direccion de Petroleo of the Ministry of Fomento of the Government of Peru. On October 28th, 1952, I was present while these inscriptions were being made, for all those concessions listed below as being in the Eastern Zone of Peru.

The lands covered by the twelve concessions listed on Part I following this report, and the factors affecting the acquisition of concessions and carrying out exploration and exploitation for oil in Peru were covered in two reports previously submitted by me;—"Preliminary Report on Eastern Peru", under date of July 30,1952, and "Geological Report, being Recommendations Regarding Exploration Concessions, Eastern Peru and Sechura Desert" under date of September 13, 1952.

The information and data contained in my above-mentioned reports and in this present report are based on: (a) a photogeological survey carried out on the existing aerial photographs covering that region, a set of which your Company is in possession: (b) two trips to Peru during 1952: the first during the month of June and the second during the latter half of September and all of October; (c) an inspection trip to eastern Peru in June, 1952, during which the Ganso Azul oilfield, refinery, storage and transportation and the geology of the surrounding area were examined and the road between Pucallpa and Tingo Maria was traversed by car (during this latter part of the trip, the Sacramento Structure, large portions of which are covered by the two concessions "Sacramento No. Uno" and "Sacramento No. Dos" hereinafter described, was examined: and (d) three and a half years of geological experience in Peru prior to 1950, during which time I studied all aspects of the regional geology of Peru, with special attention given to the petroleum potentialities of that country.

PART I — CONCESSIONS IN THE EASTERN ZONE OF PERU

1. Oil Possibilities and Potential Reserves:

The oil prospects of eastern Peru are very favorable. I am convinced that substantial petroleum reserves will be proven up within the next 10 years. Present are the essential factors necessary for the generation and accumulation of commercial quantities of oil and gas; thick sections of marine shales and limestones for source beds of petroleum: 5 or more zones of porous sandstone or limestones to serve as reservoirs: such reservoir zones are overlain by at least moderate sections of impervious shales to serve as cap rock: overlying these in most of the plains area are thick sections of tertiary sediments to serve as cover rock: and, of considerable importance, there are many structures, both large and small, to serve as traps for accumulating the oil: in addition, furthermore, there exist lensing sand conditions, unconformities and faults to serve as additional traps.

2. Political Situation and Government of Peru

I consider the political situation and government in Peru is at present very good, and shows promise of continuing to be favorable with regards to foreign companies operating in this country. I was very much impressed and encouraged by the general improvements and stability brought about in the past three years by the present government, which came into power shortly before I left the country in 1949. I was particularly impressed by the calibre of men chosen by this government to direct the section of government which deals with the control of exploration and exploitation of petroleum and minerals.

The "Peruvian Times" of June 27, 1952, reporting on a banquet given by the Pan American Society of New York on June 24, states that one of the speakers, Mr. James H. Stebbins, Washington representative of W. R. Grace and Company, said; "that Peru, at the present time, has one of the most progressive and competent governments, not only in South America but in the world".

3. Petroleum Law 11780 and Regulations:

On March 12th of this year a new petroleum law was promulgated and the Regulations of the Petroleum Law, dealing with the manner in which Law 11780 will be administered, was signed on June 10th and made public on June 17th. Those oil companies which have spent in the past large sums of money on oil exploration in Peru do not consider some parts of this law very fair, because it gives them very few, if any, special advantages over companies now entering the oil play in Peru for the first time. In other words, this Law and its Regulations definitely encourages oil companies new to Peru to enter the oil play in that country. Furthermore, this law clearly takes into account the general inaccessibility of eastern Peru and its special problems pertaining to exploration and exploitation, as compared with the coastal and mountain zones. Least money is required in eastern Peru for obtaining concessions, and the monetary value of exploration effort required to keep concessions in this zone in good standing is also substantially less than in the other two zones. A thorough study of the Petroleum Law and its Regulations and all amendments thereto leads me to conclude that it is entirely feasible for foreign companies to carry out petroleum exploration and exploitation. Furthermore, under this new petroleum law, the security of invested capital by such companies is, in all probability, better than in any other South American republic.

4. Transportation Facilities and Road Building:

I consider the present transportation facilities of Peru sufficiently adequate to enable large scale exploration operations to be carried out in the major part of the eastern zone. Government projects are now in operation, or are planned for the immediate future, to improve and extend these facilities. Two alternative means of bringing heavy equipment into this region are available. One means is by shipping across the Andes from Callao, the port of Lima, by railroad and truck: the other, by shipping by boat to Manaos or Iquitos on the Amazon River, thence by barge up the extensive river system of the upper Amazon drainage basin.

A field examination of the existing roads on the Ganso Azul concession, and of the Tingo Maria-Pucallpa Road, which cuts east-west across a major portion of the Amazon plain and eastern Andean foothills indicates that road building in many parts of eastern Peru is not as large a problem as one might suppose to exist on this heavily jungle-covered, low lying plain. Much of the soil is very sandy with a surprisingly thin cover of humus. Most of the roadcuts exposed bedrock, composed of soft sandstones and silty to sandy shales. There are many extensive deposits of river gravels, both close to and far removed from present river channels. These gravel deposits provide excellent sources of road mettle.

With reference to air transportation, a well organized and operated local airline, Faucett Aviation Company, operates a DC-3 out of Lima to Huanuco, Tingo Maria, Ganso Azul, Pucallpa, Moyobamba, Yurimaguas, Tarapoto and Iquitos, in addition to points along the coast. In addition, it operates a DC-4 to Iquitos. The aircraft are piloted by American pilots. They carry, in addition to passengers, a moderately heavy payload of freight.

5. Building Materials and Supplies:

The jungles of Peru abound in many types of hardwoods. The most common wood used for constructing camps and buildings of various types is mahogany. There are a number of sawmills located throughout the region. In particular, there is a new one, the Sacramento sawmills, now in operation about 90 kilometers (56 miles) east of Pucallpo on the road to Tingo Maria. The present capacity of this mill is 10,000 board feet per day of hardwoods, which will be increased when construction is complete.

A cursory inspection of the hardware dealers in the town of Tingo Maria, 288 kilometers (180 miles) by road west of Pucallpa, revealed that general hardware items, building materials, camp equipment and cooking utensils are available at prices substantially lower than in the United States and Canada.

Thus it appears that most items, other than canned goods, required to supply exploration crews and to supply and building oil camps can probably be procured locally more cheaply than shipping them from the States or Canada.

GEOLOGICAL ENGINEER'S REPORT (Continued)

6. Concessions Applied for in the Eastern Zone:

The lands covered by these concessions were selected on the basis of a thorough photogeological survey, carried out on the existing aerial photographs covering the region, and on the basis of the known regional geology.

The followng twelve concessions were applied for and accepted for filing on October 28, 1952. To the best of my knowledge, all these concessions are free of overlap (by the application for concessions by other companies) except in the case of the Aguaytia Concession, which is subject to an overlap of not more than ten per cent. The first nine are concessions of exploration, the next two concessions of exploitation and the last one a concession of exploration.

(1) CERRO DE VENTANILLA CONCESSION. Latitude; 6° 56′ to 7° 07′. Longitude; 75° 16′ to 75° 24′ (11 x 8 minutes). Dimensions: 20.258 x 14.745 kilometers, or 12.587 x 9.162 miles. Area; 29,870 hextares or 73,809 acres.

(a) LOCATION AND STRUCTURE:

This concession covers the major part of the Cerro De Ventanilla structure, its east, southeast and southwest flanks. This structure lies about 20 kilometers (12½ miles) west of the Rio Ucayali and west of the Santa Clara structure, drilled by the Peruvian Government in 1948 to a depth of about 1,300 feet and abandoned because of equipment lost down the hole. The Cerro de Ventanilla structure is a closed, elongated dome having a length and average width of 12½ miles and 3¾ miles, respectively, in the area of Cretaceous outcrop.

Regionally, this structure straddles the old trans-basin arch, striking about N. 70° W., which separates the Maranon depositional basin to the north from the Ucayali basin to the south. Considerable evidence exists to indicate that this arch, several hundred miles in length though not necessarily continuous, has a very old history. It is known to have existed as a subdued positive feature throughout Cretaceous and Tertiary time, because all formations of those ages thin to a marked extent as they pass over this arch. And there is a good reason to believe that it has existed since mid-Paleozoic time. If Devonian sediments were deposited along its present axis, they were removed by erosion prior to Carboniferous time, because east of the Ucayali, in the centre of the Contaya dome, the Carboniferous beds rest unconformably on Ordovician rocks.

Quite apart from young Tertiary structure present on this proposed concession, the differential compaction type structure, caused by the younger sediments draping over a Paleo-high, the trans-basin arch, described above, is of considerable importance.

(b) STRATIGRAPHY:

The presence of the Paleo-arch must have had a considerable effect on the sedimentation in the vicinity of it. Not only do the Tertiary and Cretaceous sediments thin over this feature, but probably also the Jurassic and possibly late Paleozoic formations as well. Besides thinning, there are bound to be lateral changes, such as porosity and stratigraphic pinchouts, along the flanks of this arch. These, in conjunction with the draping effect, are important factors which should result in the accumulation of commercial accumulations of oil, provided there exist contiguous source rocks.

On the Cerro de Ventanilla structure the oldest beds exposed are those belonging to the Middle Cretaceous (Aptian-Albian) Goyllar formation. Though this means that the number of possible reservoir horizons is less than on other structures such as the Aguas Calientes (Ganso Azul) and Sacramento structures, it is our opinion that the main play on this concession is well down on the south and southeast flanks of the main structure. Here is most likely to be encountered the stratigraphic and porosity wedges or pinch-outs. It is for this reason that this proposed concession is extended considerably south of its Cretaceous outcrop limits.

(c) ACCESSIBILITY:

The road from the Rio Ucayali westward to the Santa Clara well reaches to within 6 kilometers (3¾ miles) of the east boundary of the concession. About 6 miles of road, running northwest from the Rio Ucayali over relatively good ground, would have to be built into a location favorable for an initial test of the structure. The southeast corner of the concession is less than half a mile from the river. The Ucayali, of course, would serve as the main supply route, by means of river boat and barge.

(d) CONTIGUITY TO PROPOSED PIPELINE;

The centre line of this concession is within 6 or 7 miles of the probable route selected for the trunk line of the future or proposed pipeline, as projected by Dr. Santiago Antunez de Mayolo.

(2) SANTA CLARE CONCESSION.—Latitude; 6° 56′ to 7° 01′. Longitude; 75° 10′ to 75° 16′ (5 x 6 minutes). Dimensions; 9.207 x 11.059 kilometers, or 5.721 x 6.871 miles. Area: 10,182 hectares, or 25,160 acres.

(a) LOCATION AND STRUCTURE:

This concession covers the well-defined Santa Clara structure. It is completely closed, arcuate structure, being 4⅓ x 1¼ miles over the extent of the Crectaceous outcrop and it is well defined for a length of at least 8 miles. The centre of the structure is approximately 5 kilometers (3¼ miles) west of the Ucayali River and is reached from the latter by a road constructed by the Government in about 1948. The northeast corner of the concession reaches to the Ucayali at the point where the road commences.

(b) STRATIGRAPHY:

A well was drilled by the Peruvian Government in 1948 to a depth of 1,300 feet and was abandoned because some equipment was lost down the hole and fishing operations were unsuccessful. This well was located very close to the centre of the structure and started drilling in the shales of the Upper Cretaceous San Pedro formation. 610 feet of these shales were drilled. At a depth of 610 feet the Middle Cretaceous Campana formation was encountered. 690 feet of the Campana was drilled before the hole was abandoned. It is important to note that in this well the zone equivalent to the producing horizon at Ganso Azul was not reached. At Ganso Azul the oil is produced from a porous zone in the lower part of the Goyllar formation.

Regionally, this structure is almost directly over the axis of the old trans-basin arch described under Concession 1. The formation thicknesses at this location are expected to be at a minimum, compared to those north and south of this concession. With regards to stratigraphy, this acreage is being recommended because, even though the formations are exceptionally thin here, it is very probable that good porosity will be developed in the sands. Provided that such porous sands are contiguous down-dip to source beds, the oil possibilities on this concession are good. Certainly there is an excellent structural trap present.

(c) ACCESSIBILITY:

The road built by the Government from the Rio Ucayali westward to the Santa Clara well makes the accessibility of the concession very good. In all probability this road will have to be repaired but probably can be done at no great expense. The length of this road is approximately 3½ miles.

(d) CONTIGUITY OF PROPOSED PIPELINE:

In all probability the trunk line of the proposed pipeline would pass along the west boundary of this concession or close to it.

(3) HUAYA CONCESSION.—Latitude; 7° 05′ to 7° 11′. Longitude; 75° 06′ to 75° 11′ (6 x 5 minutes). Dimensions; 11.044 x 9.214 kilometers, or 6.862 x 5.725 miles. Area: 10,176 hectares or 25,145 acres.

(a) LOCATION AND STRUCTURE:

This proposed concession lies on the east side of the Rio Ucayali about 10 kilometers (5½ miles) southeast of the Santa Clara concession. Part of its north boundary is on the Ucayali. It covers an indistinctly defined structure believed to be an elongated, closed dome. This structure is indistinctly defined because the beds exposed at the surface are Middle Tertiary Miocene sandstones and siltstones which give rise to very poor topographic expression. This structure is on the same trend as the structure covered by El Oriente's Sol Numbers 1, 2 and 3 exploitation concessions, lying immediately northeast of the Town of Contamana.

This concession lies on the southwest flank of the trans-basin arch described under Concession 1, and southwest of the Contamana-Contaya uplift. It was on the north end of the Contamana structure that the El Oriente Company drilled their Rayo No. 1 well, 8 kilometers (5 miles) north-northeast of the northeast corner of the concession. This well was drilled to a total depth of only 2,600 feet because the drill penetrated Late Miocene intrusive rock at a depth of 2,595 feet and the Company at that time believed they had reached basement. It was for this reason the well was abandoned.

(b) STRATIGRAPHY:

The Cretaceous formations are expected to be moderately thin here but thickening quite rapidly to the southwest, into the Ucayali sedimentary basin. Stratigraphic and porosity pinch-outs are to be expected, wedging out to the northeast against the paleo-arch and the Contaya uplift. Marine Tertiary sediments, as elsewhere in the Ucayali basin, are unlikely. Oil seepages are found 55 kilometers (35 miles) to the southeast of this area.

(c) ACCESSIBILITY:

Part of the north boundary of this concession is on the Rio Ucayali. The terrain is fairly low but moderately well drained, but no great difficulties should be encountered in building a road southward onto the crest of this structure. An oxbow lake, connected with the Ucayali River by a wide channel crosses the southwest corner of the concession. It is believed possible that barges could be floated into the concession on this lake, though some dredging might be necessary where it joins the Ucayali.

(d) CONTIGUITY TO PROPOSED PIPELINE:

This concession, being on the east side of the Ucayali, is across the river from the proposed pipeline route. At its closest point this concession is 10 kilometers (6¼ miles) from the proposed route.

(4) CATALINA CONCESSIONS.—Latitude; 6° 38′ to 6° 49′ 19″. Longitude; 75° 13′ to 75° 26′ (15 x 13 minutes). Dimensions: 20.876 x 23.951 kilometers or 17,177 x 14.882 miles. Area: 50,000 hectares or 123,550 acres.

(a) LOCATION AND STRUCTURE:

This concession covers a broad, gentle, indistinctly expressed structure lying on the north flank of the trans-basin arch referred to above. It is situated west of the Ucayali River and essentially between the Rio Santa Catalina and the Rio Sarayaquilla, parts of the Rio Santa Catalina actually flowing across the concession. Its centre is about 30 kilometers (18¾ miles) northwest of the Santa Clara well.

(b) STRATIGRAPHY:

On the basis of stratigraphy is well located to catch stratigraphic and porosity pinch-outs, wedging southward or south-westward against the flank of the trans-basin arch. The Cretaceous and Tertiary formations are known to thicken quite rapidly northward. Also possibly of considerable importance is the probable presence in this area of marine tertiary tongues, interfingered with non-marine to brackish sands. It is very doubtful if these marine tertiary sediments extend southward across the arch. If present, these marine shales are possible source beds of petroleum.

In summary it can be said that both structural and stratigraphic conditions present in this area are such that this acreage can be fully recommended.

(c) ACCESSIBILITY:

For exploration purposes the Santa Catalina and Sarayaquilla Rivers passing respectively along the northern and southern margins of the proposed concession will serve as lines of communication for small boats and canoes. At its closest point the Ucayali River is five miles from the southeast corner of the concession. Its northeast corner is six miles from the river. A road 15 miles in length would be required to reach a location favorable for an initial deep test of this area.

(d) CONTIGUITY TO PROPOSED PIPELINE;

The probable location of the proposed pipeline would cross this concession from the northwest corner to the middle of the south boundary.

(5) SHANUSI-CAINARACHE CONCESSION.—Latitude: 6° 01′ to 6° 11′. Longitude; 76° 00′ to 76° 13′ (10 x 13 minutes). Dimensions: 18.430 x 23.980 kilometers or 11.451 x 14,900 miles. Area: 44.195 hectares or 109,206 acres.

(a) LOCATION AND STRUCTURE :

This concession covers the main part of a fairly large, fairly well defined structure, striking about N. 60° W. to N. 75° W. Its north and northeast flank is very well defined in miocene beds, with dips in the order of 15 to 35 degrees. Its southwestern flank is believed to be a normal fault downthrown on the southwestern side. Thirty kilometers southeast of the concession, along the same structural axis, there exist verified oil seeps.

This concession lies southwest of the Rio Huallaga which touches its northeastern corner. Its northern boundary is 12 kilometers (7½ miles) south of the town of Yurimaguas. At Yurimaguas, which is a comparatively large town for this region, is an airfield regularly visited by Faucett DC-3 planes. This town is also the terminus of a proposed highway westward to the coast.

(b) STRATIGRAPHY

This area is idealy located for optimum stratigraphic conditions. Expected to present are Tertiary, Cretaceous, Jurassic, and Upper Paleozoic and developments, contiguous to petroleum source beds, suitable for the accumulation of commercial quantities of oil.

(c) ACCESSIBILITY:

The Rio Shanusi, a medium sized tributary entering the Huallaga close to Yurimaguas, crosses the northeastern corner of this concession. Its northeastern corner is on the Huallaga, and its southeastern corner can be reached by another small tributary, the Rio Cainarache. A road built from the Huallaga at the northeast corner would cross low ground for the first 3½ kilometers (2¼ miles) but beyond this point higher, well drained ground would be reached.

(d) CONTIGUITY TO PROPOSED PIPELINE:

The proposed pipeline route crosses this concession diagonally from northwest to southeast.

(6) YURIMAGUAS CONCESSION.—Latitude: 5° 53′ to 6° 09′. Longitude: 75° 27′ to 75° 36′. Dimensions: 29.490 x 16.608 kilometers or 18.324 x 10.941 miles. Area: 48,977 hectares or 121.022 acres.

(a) LOCATION AND STRUCTURE:

This concession is located east of the Huallaga and west of the big bend in the Rio Ucayali. It covers the main crestal area of the Yurimaguas structure, a very broad, gentle structural dome. Its west boundary is 35 kilometers (34½ miles) due east of Yurimaguas.

(b) STRATIGRAPHY:

As on the Shanusi-Cainarache concession, this concession is ideally located for excellent stratigraphic conditions. Expected to be present are Tertiary, Cretaceous, Jurassic and Upper Paleozoic sand developments, contiguous to petroleum source beds, though the formations will be somewhat thinner than in the former concession. Possibilities for marine Tertiary development are good.

(c) ACCESSIBILITY:

This concession is crossed by two trails running between the Huallaga and the Ucayali. The area is all on high ground and moderately well drained.

(d) CONTIGUITY TO PROPOSED PIPELINE:

At its closest point this concession is 30 kilometers (19 miles) northeast of the proposed pipeline route and on the opposite side of the Rio Huallaga.

(7) CHINGANSA CONCESSION.—Latitude: 3° 54′ to 3° 58′. Longitude: 77° 49′ to 77° 52′ (4 x 3 minutes). Dimensions: 7.402 x 5.530 kilometers or 4.599 x 3.436 miles. Area: 4,093 hectares or 10,114 acres.

(a) LOCATION AND STRUCTURE:

This concession covers a small, well-defined structure about 10 kilometers (6¼ miles) west of the Rio Santiago, in the northern part of the eastern Andean foothills. It lies about 60 kilometers (47½ miles) northwest of Borja on the Rio Maranon.

(b) STRATIGRAPHY:

Beds exposed on the crest of the structure are Lower Tertiary in age. Cretaceous and possibly marine Tertiary pinch-outs, wedging out westward against an old positive feature, The Guaracayo structure, are to be expected. Formation thicknesses here are probably only moderate.

(c) ACCESSIBILITY:

The main line of communication and transport will be the Rio Santiago and Rio Maranon. The Pongo de Manseriche, the narrow gorge immediately west of Borja, is navigable during the dry season by moderately large river boats and barges. It is very deep, but narrow.

For inspection and exploration surveys, this proposed concession can be reached, using motor-powered canoes, by way of the Rio Chingansa and south branch. This small river flows eastward into the Rio Santiago. For drilling equipment, a road, about 6½ miles in length, would have to be built over generally dry ground.

(d) CONTIGUITY TO PROPOSED PIPELINE:

This area lies about 60 kilometers (37½ miles) north of the proposed pipeline route.

(8) CANGASA CONCESSION.—Latitude: 4° 20′ to 4° 25′. Longitude: 77° 54′ to 77° 58′ (5 x 4 minutes). Dimensions: 9.247 x 7.373 kilometers or 4.595 x 5.722 miles. Area: 6,818 hectares or 16,847 acres.

(a) LOCATION AND STRUCTURE:

This concession lies 22 kilometers (14 miles) west of the lower part of the Rio Santiago and 18 kilometers (11 miles) north of the Rio Maranon. It covers a very well-defined, closed structure.

(b) STRATIGRAPHY:

The oldest beds exposed at the crest of the structure are lower Tertiary in age. Formation thicknesses are expected to be average. Several verified oil seeps exist immediately north of this area.

(c) ACCESSIBILITY:

The accessibility of this area is fair. A road, 20 kilometers (11½ miles) in length, constructed from the Maranon and running straight northwestward would reach to a location favorable for an initial deep test of this structure.

(d) CONTIGUITY TO PROPOSED PIPELINE:

At its closest point this area lies 22½ kilometres (14 miles) northwest of the probable location of the proposed pipeline route.

(9) NIEVA CONCESSION.—Latitude: 4° 44′ to 4° 48′. Longitude: 77° 55′ to 78° 00′ (4 x 5 minutes). Dimensions: 7.396 x 9.210 kilometers or 4.595 x 5.722 miles. Area: 6,812 hectares or 16,832 acres.

(a) LOCATION AND STRUCTURE:

At its closest point, this concession is 8 kilometers (5 miles) southeast of the Rio Maranon; 50 kilometers (31 miles) southwest of Borja; and a medium-sized navigable river, the Rio Nieva, crosses its southeast corner.

This area covers a well-defined, prominent structure, faulted on its southeast flank. This fault, being a normal fault, should provide good structural closure.

(b) STRATIGRAPHY:

Optimum stratigraphic conditions are expected to be present in this area. The oldest beds exposed at the crest are Lower Tertiary in age.

(c) ACCESSIBILITY:

The main line of communication and transport are the Rio Maranon and Rio Nieva, the latter being navigable by medium river boats and barges. At most, 2½ miles of road would have to be constructed to reach a favorable drilling location.

(d) CONTIGUITY TO PROPOSED PIPELINE:

The proposed pipeline route should pass within 6 kilometers (3¾ miles) of the northwest corner of this area.

(10) SACRAMENTO No. UNO CONCESSION (Concession of Exploitation).—Latitude: 8° 54′10″.65 to 9° 03′23″.65. Longitude: 75° 01′07″.20 to 75° 07′56″.12. Dimensions: 12.500 x 17.000 kilometers or 7.75 x 10.54 miles. Area: 21,250 hectares or 52,509 acres.

(a) LOCATION AND STRUCTURE:

This concession falls within the Ganso Azul "Area of Special Interest". Its centre is 35 kilometers (22 miles) west-southwest of the Ganso Azul oilfield. It adjoins the south boundary of the San Alejandro No. 1 Concession of exploration, held by the Compania Peruana de Petroleo El Oriente. This concession covers the one-third of the crestal area of the Sacramento structure. This structure is very well defined where crossed by the Tingo Maria-Pucallpa highway, as was observed during our field inspection in June, 1952. Closure on this structure is provided by good plunge north and fair plunge to the south, in addition to the well defined transverse reversal.

(b) STRATIGRAPHY:

I consider the stratigraphic conditions in this area to be particularly favorable for the generation of petroleum. The proximity of this concession to the Ganso Azul field and to various oil seeps located a short distance to the southeast, leads me to conclude that the oil possibilities of this structure are good.

(c) ACCESSIBILITY:

The northwest corner of this concession lies 5 kilometers (3 miles) south of the highway. Road building in this area should be relatively inexpensive. The Sacramento sawmill is located 7 kilometers north of the north boundary of this concession.

(d) CONTIGUITY TO PROPOSED PIPELINE;

The concession is within 30 kilometres (19 miles) of the proposed pipeline route.

(11) SACRAMENTO No. 2 CONCESSION (Concession of Exploitation).—Latitude 8° 42′; 47″.10 to 8° 54′10″.69. Longitude: 75° 07′56″.12 to 75° 13′23″.26. Dimensions: 10.000 x 21.000 kilometers or 6.2 x 13.02 miles. Area; 21,000 hectares or 51,891 acres.

(a) LOCATION AND STRUCTURE:

The centre of this location is 43 kilometers (26½ miles) west of the Ganso Azul field and is crossed by the Tingo-Maria-Pucallpa road. It adjoins the west boundary of the San Alejandro No. 2 Concession, both held by Compania Peruana de Petroleo El Oriente. Structurally, it covers the west flank of the Sacramento structure and in its northwestern corner covers part of the crestal area. Field and photogeological evidence suggests the possibility that this concession is crossed by a subsidiary, an echelon structure lying to the west of the main Sacramento structure.

(b) STRATIGRAPHY:

As on the Sacramento No. 1 concession, the stratigraphy on this one is considered to be very favorable.

(c) ACCESSIBILITY:

As stated above, the highway crosses this concession eastward a short distance south of its centre line. Thus, its accessibility is excellent. Additional roads to the north or south to reach all parts of the concession would be relatively inexpensive.

(d) CONTIGUITY TO PROPOSED PIPELINE:

This area is about 40 kilometres (25 miles) west of the proposed pipeline route.

(12) AGUAYTIA CONCESSION (Concession of Exploration).—Latitude: 8° 20′00″ to 8° 31′00″. Longitude: 75° 09′00″ to 75° 20′00″. Dimensions: 20.170 x 20.276 kilometers or 12.50 x 12.57 miles. Area: 40,897 hectares or 101,056 acres, subject to less than 10% overlap.

(a) LOCATION AND STRUCTURE:

The centre of this concession is 62 kilometers (38½ miles) northwest of the Ganso Azul field and 40 kilometers (25 miles) north of the highway. It is crossed by the Rio Aguaytia and by the Rio San Alejandro. It is crossed by two structures: Aguaytia anticline and a northern development of the Sacramento structure. Both structures have indicated closure within the boundaries of the concession, and both are considered good oil prospects.

(b) STRATIGRAPHY:

As on the Sacramento concessions, the stratigraphy here is considered favorable. Porous sand developments are expected to be considerably better than encountered in the El Oriente Company's Inco No. 2 well on the Rio Pisqui located 62 kilometers (38½ miles) north-northwest of the centre of this concession. However, a higher percentage of shales are to be expected here as compared to the Sacramento area.

(c) ACCESSIBILITY:

This concession can be reached by barge and power boat on the Rio Aguaytia, which is a large tributary of the Rio Ucayali, or it could be reached by building a road northwards from the highway. The terrain, though rough, is elevated above river level and is well drained.

(d) CONTIGUITY TO PROPOSED PIPELINE:

The centre of this area lies about 50 kilometers (31 miles) west of the proposed pipeline route.

PART II — CONCESSIONS IN THE COASTAL ZONE OF PERU IN THE SECHURA DESERT DISTRICT

1. Oil Possibilities and Potential Reserves:

The Sechura Desert District lies within the Coastal Zone of Peru, as defined by the Petroleum Law 11780. It is situated in the northern part of this zone; it borders the Pacific coast immediately south of the Talgara and Negretos oil fields owned and operated by the International Petroleum Company. Many of the major oil companies, including International Petroleum, have tried to obtain the exclusive right to explore and exploit, for petroleum and natural gas, the Sechura District. Considerable exploratory work, both surface and subsurface, has been carried out in this region by the various companies. A number of oil seeps and structural anomalies have been discovered and the necessary stratigraphic and structural conditions, necessary for the generation and accumulation of large, commercial quantities of oil and gas, are believed to be present. The fact that at least four major oil companies each filed for the maximum allowable area in the Sechura region substantiates this belief.

2. Transportation and Road Building:

The Sechura District is very accessible. It is crossed along its eastern margin by the Pan-American Highway, which is an excellent hard-surfaced route of general access. Almost any part of this region, being a desert, can be reached by automotive equipment. Furthermore, heavy equipment could be landed from barges at many points along the coast bordering this region.

A good natural harbor exists at Bayovar, immediately north of the large headland and peninsula by the same name. It is in the vicinity of this harbor that proposed plans calls for the erection of a refinery at the end of the Trans-Andean pipeline from eastern Peru, in the event that large reserves of oil are proved up in that region. The harbor at Bayovar is also the logical point from which to ship oil discovered in the Sechura Desert.

3. Concessions Applied for in the Sechura District:

Peruvian Oils and Minerals, on November 12th, 1952, applied for eleven concessions on the Sechura Desert. Of these, three were completely overlapped by applications of other companies, three were partially overlapped, and five were not overlapped. The total of the clear, non-overlapped area is 25,051.95 hectares or 61,903 acres. Part of the overlapped areas may be obtained by Peruvian Oils and Minerals Limited through the process of sealed bids.

Following is given a list of these eight concessions, their location with respect to the Official Plan (see Plate 13) and the areas of each which is free of overlap.

(1) Toronto No. 1 Concession of Exploitation:
Location—Eastern edge of Parcel 88 of Lot E. Area—3,999.99 hectares or 9,884 acres. All clear of overlap.

(2) Toronto No. 2 Concession of Exploitation:
Location—Eastern edge of Parcel 91 of Lot E. Area—2,600 hectares or 6,425 acres. All clear of overlap.

(3) Toronto No. 3 Concession of Exploration:
Location—In western part of Parcel 42 of Lot E. Area—Partially overlapped, but 407.96 hectares or 1,008 acres clear of overlap.

(4) Toronto No. 4 Concession of Exploration:
Location—North central part of Parcel 94 of Lot E. Area—2,580 hectares or 6,375 acres. All clear of overlap.

(5) Toronto No. 5 Concession of Exploration:
Location—Western part of Parcels 115 and 116 of Lot K. Area—10,000 hectares or 24,710 acres. All clear of overlap.

(6) Toronto No. 6 Concession of Exploration:
Location—In western half of Parcel 121 of Lot L. Area—5,000 hectares or 12,355 acres. All clear of overlap.

(7) Toronto No. 7 Concession of Exploitation:
Location—South central part of Parcel 42 of Lot E. Area—900 hectares or 2,223 acres are clear of overlap.

(8) Toronto No. 8 Concession of Exploitation
Location—Western edge of Parcel 66 of Lot E. Area—Partially overlapped but 264 hectares or 652 acres are clear of overlap.

4. Geological Evaluation Summary of Concessions Toronto Nos. 1-8:

The above listed eight concessions are all well situated within areas considered, in my opinion, to have fair to good chances of obtaining commercial petroleum production. All are contiguous or close to concessions obtained by companies known to have carried out extensive surface and sub-surface exploration. Concessions Toronto Nos. 3 and 7 are within 25 kilometers (15½ miles) of known oil seeps.

Though I have not examined these particular areas in the field, I am familiar with the whole region in which they are located from a study of the aerial photographs and of the regional geology.

CONCLUSIONS

The twenty concessions described in this report, covering a total of 315,232 hectares or 778,938 acres clear of overlap, are located on very promising but definitely unproven oil lands.

The twelve concessions in the Eastern Zone, covering a total of 290,180 hectares or 717,035 acres clear of overlap, have been so located that they cover what I consider to be some of the most promising oil structures in that region. In addition, they are well located with respect to stratigraphic conditions favorable to the generation and accumulation of petroleum. The numerous oil seeps in the region, in addition to the producing field of Ganso Azul, reported to have 20,000,000 barrels of reserves, strongly suggests that this region may contain large reserves of oil.

The eight concessions, herein described, on the Sechura Desert, and covering a total of 25,052 hectares or 61,903 acres clear of overlap, are located in a region long considered by many geologists to contain large unproven reserves. Several major oil companies, which have carried out extensive surface and sub-surface explorations, filed on the maximum allowable area on October 28th of this year and subsequently. It is known that they would have filed for concessions prior to this date had the necessary legislation been in existence. The presence of oil seeps in this region, and the productive fields at Talara and Negritos, north of the Sechura Desert, are favorable indications.

I consider it advisable for Peruvian Oils and Minerals, Limited, to carry out their initial exploration efforts on the two Sacramento concessions and the Aguaytia concession, because not only are they very promising structures but also they are close to known production (at Ganso Azul) and are the most accessible.

Yours very truly,
(Signed) "P. H. BLANCHET", M.E.I.C., P.Eng.
Geological Engineer.

CERTIFICATE

This is to certify that I, Peter Hunton Blanchet, of 2505 Twenty-first Street Southwest, Calgary, Alberta, am a Geological Engineer. I am a graduate of the University of British Columbia, a Registered Professional Engineer in the Provinces of Alberta and British Columbia, a member of the Engineering Institute of Canada, of the American Society of Petroleum Geologists and of the American Society of Photogrammetrists. I am Assistant Manager of Denton-Spencer Company Limited, Calgary, Consulting Petroleum Engineers and Geologists.

I have no interest, either directly or indirectly, in the properties described in the attached report or in the securities of Peruvian Oils and Minerals, Limited, nor do I expect to receive any such interest directly or indirectly.

I enclose herewith a report on the petroleum concessions in Peru, South America, applied for by Peruvian Oils and Minerals, Limited, and in process of acquisition. The lands covered by these concessions have been examined by me, in part in the field and in part on aerial photographs. The information in my report is based on my examinations and on my studies of the regional geology of Peru and of the various factors affecting operations in that country.

Respectfully submitted,
(Signed) "P. H. BLANCHET", M.E.I.C., P.Eng.

November 28th, 1952